

**INDUSTRY**  
WOOD

**APPLICATION**  
SAWMILL

**PRODUCT**  
ISORAN GOLD RPP14 DUAL SIDED



## SITUATION/APPLICATION

Sawmills are generally stationary outdoor operations where logs are cut into lumber. Logs are inserted into one end and undergo a sawing process where boards exit on the other end. Portable sawmills are also used for processing lumber in remote locations or for producing limited volume or specialty milling.

Whether stationary or portable, sawmills commonly use a wide variety of rubber power transmission belting to power the large saw blades used to cut the wood.

## THE PROBLEM

The Application Engineering Team at Megadyne collaborated with a manufacturer of portable sawmills to design a drive capable of increasing production capacity in terms of cutting quality and speed. The design would incorporate two blades synchronized in counter rotation. The belt drive would be required to deliver high precision positioning at high linear speed. As the units are normally located outdoors it would require the drive to work at very low winter as well as high summer temperatures. A dual sided rubber v-belt was ruled out as it would not provide the synchronization and positive, non-slip drive characteristics required to maintain maximum efficiency. The system called for a belt drive capable of handling high speed, elevated horsepower and frequent torque peaks while surviving the extreme outdoor conditions. A dual-sided rubber synchronous belt drive was chosen to produce the counter-rotating function. In testing, standard dual-sided synchronous products from competitors proved not to have the power capacity to deliver acceptable belt life in this severe environment.

## THE SOLUTION

Specifically designed for super high torque drives requiring higher power capacity than standard dual-sided belts, Megadyne provided the optimum solution with Isoran® RPP® Gold rubber synchronous belts. These dual-sided belts contain extra high strength fiberglass tensile cords assuring excellent dimensional stability and higher power capability than standard constructions. Further enhancing its performance is a high-performance chloroprene rubber compound and RPP (reinforced parabolic profile) tooth profile with a double nylon graphite impregnated tooth cover for increased power transmission capability and greater resistance to tooth shear with low friction and long wear.

## THE RESULT

The robust construction and long-wearing construction of Isoran® RPP® Gold easily survived the extreme environment of this severe drive.

Isoran® RPP® Gold Dual-Sided synchronous belt is the result of Megadyne's continued focus on developing high-performance drive systems for every level of performance required. As competitors offer only a lower horsepower/torque capacity dual-sided belt range, Megadyne was able to provide the best solution from our wide range of synchronous dual-sided belts.

